



SUB-COMMITTEE ON
RADIOCOMMUNICATIONS AND SEARCH
AND RESCUE -
4th session
Agenda item 8.1

COMSAR 4/INF.2
31 March 1999
ENGLISH ONLY

**MATTERS CONCERNING SEARCH AND RESCUE INCLUDING
THOSE RELATED TO THE 1979 SAR CONFERENCE
AND THE INTRODUCTION OF THE GMDSS**

**Report of the sixth ICAO/IMO Joint Working Group
on Harmonization of Aeronautical and
Maritime Search and Rescue**

Note by the Secretariat

SUMMARY

- Executive summary:*** Remaining appendices A, B, C, E, G and J to the report of the sixth meeting of the ICAO/IMO Joint Working Group on Harmonization of Aeronautical and Maritime Search and Rescue was held in Victoria, B.C., from 5 to 9 October 1998, are annexed herewith for information.
- Action to be taken:*** The Sub-Committee is invited to note the information provided.
- Related documents:*** COMSAR 4/8/4

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ANNEX

APPENDIX A

**ICAO/IMO JOINT WORKING GROUP ON SAR (1998)
SIXTH MEETING
Victoria 05 – 09 1998**

Final Version

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APPENDIX B

DRAFT AGENDA FOR THE SIXTH MEETING OF THE ICAO/IMO JOINT WORKING GROUP ON HARMONIZATION OF AERONAUTICAL AND MARITIME SEARCH AND RESCUE

1. Adoption of the agenda
2. Consideration of terms of reference – future work of the Joint Working Group and priorities
3. Provisions of conventions, plans, manuals and other documents affecting SAR:
 1. impact on Annex 12 in relation to the revised Maritime SAR Convention (vice-chairman and ICAO sec);
 2. future work on the IAMSAR – publication, translation, distribution and updating (Status of existing ICAO/IMO SAR Manuals after IAMSAR is published) (ICAO/IMO sec);
 3. possible alignment of the IMO Area SAR Plans, GMDSS Master Plan and ICAO Regional Air Navigation Plans (chairman);
 4. development of a joint circular on Aeronautical and Maritime SAR (UK and France); and
 5. outcome of discussions between UK and NATO on the future of ATP-10 (UK).
4. SAR operational principles, procedures and techniques:
 1. development of operating plans in general and for special risk objects – introduction of the standard format for a plan in accordance with SOLAR V/15 (UK);
 2. definition of “medical teams” (France, Germany and Japan); and
 3. possible standard for “Telemedical centre” for use by RCCs (France).
5. SAR System administration, organization and implementation methods:
 1. management organization;
 2. quality control/improvement; and
 3. data collection on SAR incidents (Canada).
6. RCC/RSC equipment and facility designations and standards:
 1. computer assistance in co-ordination and search planning (Canada);
 2. the use of Internet in RCC/RSC work; and
 3. the adoption of transponder-technique e.g. AIS, DSC and GP&C by ICAO/IMO as an anticollision and tracking system. Possible use in SAR. (Chairman and ICAO/IMO sec).

7. SAR communications
 1. status of the GMDSS including shore-based and on-board monitoring of channel 16, VHF (IMO sec);
 2. outcome of the JWG recommendations on discontinuation of 121.5 MHz for alerting purposes and the use of only 406 MHz or 1.6 GHz for alerting via satellite (ICAO/IMO sec); and
 3. review of the world wide LUT coverage.
8. SAR personnel staffing and training:
 1. definition of SAR training, SAR related training and competence related training, e.g. drift calculations – first aid – basic navigation (Chairman);
 2. reviewing the existing IMO model courses (distributed to all members before the last session) and purpose joint courses taking into account the Joint Manual;
 3. courses should be developed for the following groups;
 - ! SAR Administrators
 - ! SAR Duty Officers/SAR Mission Co-ordinators in RCCs and RSCs
 - ! On Scene Co-ordinators
 - ! Mobile SAR unit crew, professional
 - ! Mobile SAR units crew, part-time
 - ! Ships crew
 - ! Air crew
 - ! Introduction to SAR for co-operating agencies, companies and organizations
 4. Review of existing ICAO and IMO circulars or similar documents offering international SAR training (ICAO/IMO sec); and
 5. ILF (International Life-boat Federation) ongoing work with SAR training (UK).
9. Any other business
10. Report to ICAO and the COMSAR Sub-Committee

APPENDIX C

TERMS OF REFERENCE OF THE INTERNATIONAL CIVIL AVIATION ORGANIZATION/INTERNATIONAL MARITIME ORGANIZATION JOINT WORKING GROUP ON SEARCH AND RESCUE

1. This Joint Working Group (JWG) is established to develop recommendations and information to support the IMO Sub-Committee on Radiocommunications and Search and Rescue and/or ICAO, as appropriate, on any matters pertinent to harmonization of international maritime and aeronautical SAR.
2. The JWG will meet as necessary, subject to approval of the IMO Maritime Safety Committee and ICAO, with meetings hosted and supported by IMO and ICAO on an alternating basis.
- 2.3 Invitations to participate in the JWG will be submitted to respective Member States by both IMO and ICAO.
4. Language services will not be provided during JWG meetings.
5. JWG meetings will generally take place annually about midway between meetings of the IMO Sub-Committee on Radiocommunications and Search and Rescue.
6. The JWG will provide an active interface between IMO and ICAO for harmonization of maritime and aeronautical SAR plans and procedures in accordance with the 1985 MOU between IMO and ICAO, and with resolution 1 of the 1979 International Conference on Maritime Search and Rescue.
7. The JWG will review and develop proposals relating to harmonization in various matters including:
 - a) provisions of conventions, plans, manuals and other documents affecting SAR;
 - b) SAR operational principles, procedures and techniques;
 - c) SAR system administration, organization and implementation methods;
 - d) RCC/RSC equipment and facility designations and standards;
 - e) SAR communications; and
 - f) SAR personnel staffing and training.
8. Need for JWG continuation will be reviewed by IMO and ICAO on an ongoing basis; the JWG will be discontinued when either organization concludes the work is no longer cost effective, and formally informs the other of its decision to discontinue.

APPENDIX E

United States

National Search and Rescue Plan--1999

POLICY

1. It is the policy of the signatory federal agencies to provide a National Search and Rescue Plan for co-ordinating civil search and rescue (SAR) services to meet domestic needs and international commitments. Implementing guidance for this Plan is provided in the *International Aeronautical and Maritime Search and Rescue Manual* (IAMSAR Manual discussed below), the *National Search and Rescue Supplement* (a domestic interagency supplement to the IAMSAR Manual), and other relevant directives of the Participants to this Plan.

PURPOSE

2. This Plan continues, by interagency agreement, the effective use of all available facilities in all types of SAR missions. The National Search and Rescue Plan-1986 is superseded by this Plan.

TERMS AND DEFINITIONS

3. The following terms and definitions are based on international usage for civil SAR. For more information about these terms and others commonly used for civil SAR, refer to the IAMSAR Manual, which is jointly published by the International Civil Aviation Organization (ICAO) and the International Maritime Organization (IMO).

3.1 Search and rescue co-ordinator. A federal person or agency with overall responsibility for establishing and providing civil SAR services for a search and rescue region(s) for which the U.S. has primary responsibility.

3.2 Search and rescue region (SRR). An area of defined dimensions, recognized by ICAO, IMO or other cognizant international body, and associated with a rescue co-ordination center within which SAR services are provided.

3.3 Search and rescue services. The performance of distress monitoring, communication, co-ordination and SAR functions, including provision of medical advice, initial medical assistance, or medical evacuation, through the use of public and private resources including co-operating aircraft, vessels and other craft and installations.

3.4 Rescue co-ordination center (RCC). A unit, recognized by ICAO, IMO or other cognizant international body, responsible for promoting efficient organization of civil SAR services and for co-ordinating the conduct of SAR operations within an SRR.

3.5 Rescue sub-center (RSC). A unit subordinate to an RCC established to complement the latter according to particular provisions of the responsible authorities.

3.6 Joint rescue co-ordination center (JRCC). An RCC responsible for more than one primary type of SAR services, e.g., both aeronautical and maritime SAR incidents. *NOTE: The term “JRCC” will not be used for civil SAR purposes solely on the basis that an RCC is staffed by personnel from, or is sponsored by, more than one organization.*

OBJECTIVES

4. Knowing the importance of co-operation in providing expeditious and effective SAR services, the Participants to this Plan desire to:

- Provide a national plan for co-ordinating SAR services to meet domestic needs and international commitments, and to document related basic national policies;
- Support lifesaving provisions of the International Convention on Maritime Search and Rescue of IMO, the Convention on International Civil Aviation of ICAO, certain international agreements to which the U.S. is Party, and similar international instruments;
- Provide an overall Plan for co-ordination of SAR operations, effective use of all available resources, mutual assistance, and efforts to improve such co-operation and services; and
- Integrate available resources which can be used for SAR into a co-operative network for greater protection of life and property and to ensure greater efficiency and economy.

5. This Plan is further intended to:

- Help the U.S. satisfy its humanitarian, national, and international SAR-related obligations;
- Provide national guidance for development of SAR-related systems;
- Describe its Participants and their roles in a pro-lifesaving context;
- Recognize lead federal agencies, respectively, for the types of operations covered by this Plan, and describe geographic regions of SAR responsibility, as appropriate;
- Account for saving property, but on a secondary basis to saving lives;
- Account for all operations up to and including providing initial assistance (food, clothing, medical, etc.) to survivors and delivering them to a place of safety; and
- Have, as a primary concept, co-operation for overall and continual development, co-ordination and improvement of SAR services.

SCOPE

6. It is intended that this Plan not conflict in any way with SAR responsibilities agreed to by contracting States of the Convention on International Civil Aviation, the International Convention on Maritime Search and Rescue, or other appropriate international instruments to which the U.S. is or may become a Party.

7. No provisions of this Plan or any supporting plan are to be construed in such a way as to contravene responsibilities and authorities of any Participant as defined by statutes, executive orders or international agreements, or of established responsibilities of other agencies and organizations which regularly assist persons and property in distress resulting from incidents of a local nature.

8. This Plan is solely intended to provide internal guidance to all signatory federal agencies. State organizations may wish to retain established SAR responsibilities within their boundaries for incidents primarily local or intrastate in character. In such cases, appropriate agreements are generally made between SAR co-ordinator(s) and relevant State organizations.

PARTICIPANTS

9. The Participants to this Plan are as follows:

- The agencies of the Department of Transportation (DOT) carry out broad responsibilities in transportation safety. The Coast Guard develops, establishes, maintains and operates rescue facilities for the promotion of safety on, under and over international waters and waters subject to U.S. jurisdiction, conducts safety inspections of most merchant vessels, and investigates marine casualties. The Federal Aviation Administration has air traffic control and flight service facilities available to assist in SAR operations. The Maritime Administration operates a fleet of merchant ships for government use and promotes a safe merchant marine.
- Department of Defense (DOD) components have facilities and other resources that are used to support their own operations. These resources may be used for civil SAR needs on a not-to-interfere basis with military missions.
- The Department of Commerce (DOC) participates in or supports SAR operations through the National Oceanic and Atmospheric Administration (NOAA). NOAA provides nautical and aeronautical charting; information on tides and tidal currents; marine environmental forecasts and warnings for the high seas, and coastal and inland waterways; and satellite services for detecting and locating aircraft, ships or individuals in potential or actual distress.
- The Federal Communications Commission (FCC) promulgates rules and regulations for non-government use of wire and radio facilities for promoting safety of life and property, and co-operates in SAR operations through its long-range direction finder network.
- The National Aeronautics and Space Administration (NASA) has aircraft, spacecraft and worldwide tracking, data acquisition and communications networks which can assist in SAR operations. NASA supports SAR objectives through research and development or application of technology to search, rescue, survival, and recovery equipment such as location tracking systems, transmitters, receivers, and antennas capable of locating aircraft, ships, spacecraft, or individuals in potential or actual distress.
- Land managing components of the Department of the Interior (DOI) provide SAR services on lands and waters administered by DOI and may assist in operations in adjacent jurisdictions. The degrees of responsibility assumed in each DOI field area depends upon the legislative and jurisdictional character of the bureau and field area. Responses range from support of law enforcement authorities or other local units to primary SAR

co-ordination and operations. Similarly, components assume varying degrees of responsibility for preventative measures to protect the visiting public.

10. A federal agency that is not a Participant to this Plan may become a Participant by unanimous vote of the National SAR Co-ordinating Committee, followed by written notification by the agency to the Chairman of the National SAR Co-ordinating Committee of its accession to the Plan.

U.S. SEARCH AND RESCUE REGIONS

11. SRRs are established to ensure provision of adequate land-based communications infrastructure, efficient distress alert routing, and proper operational co-ordination to effectively support SAR services.

12. SRRs should be contiguous and, as far as practicable, not overlap.

13. Establishment of SRRs is intended to effect an understanding concerning where nations have accepted primary responsibility for co-ordinating or providing SAR services. The existence of SRR limits should not be viewed as a basis to restrict, delay, or limit in any way, prompt and effective action to relieve distress situations.

14. All SRRs of the U.S. are established in co-operation with neighbouring nations, are internationally recognized, and are described in pertinent documents of IMO or ICAO.

NOTE: U. S. maritime and aeronautical SRRs are established in accordance with the relevant IMO and ICAO Conventions and with the guidance of the IAMSAR Manual. These SRRs are internationally-recognized and documented in the appropriate ICAO Regional Air Navigation Plans and in the IMO SAR Plan. More specific information on U.S. SRRs can also be found in the U.S. "National Search and Rescue Supplement," in which SRR charts will be included for convenient reference.

15. U.S. maritime and aeronautical SRRs will be harmonized with each other to the extent practicable, recognizing, however, that lines separating SRRs must normally be agreed by governments having neighbouring SRRs when possible. SRRs will not be allowed to unduly affect or be affected by any political boundaries.

16. For civil SAR there must be, by definition, one RCC associated with each recognized SRR. Comprehensive standards and guidance pertinent to these RCCs have been developed by IMO and ICAO, and may be found in relevant Conventions, the IAMSAR Manual, and other publications which should be held and used by U.S. RCCs. U.S. SAR Co-ordinators as designated in this Plan are responsible for arranging for SAR services and establishing the RCCs for these SRRs. The U.S. civil SAR system becomes integrated into the global SAR system by establishing recognized SRRs and RCCs which comply with international standards.

17. SRRs may be subdivided as long as the delimitation of the sub-regions coincide with pertinent SRR limits. Where this is not practicable, changes to international limits should be proposed to the appropriate international organization through proper channels by the agency primarily concerned.

PARTICIPANT RESPONSIBILITIES

Primary Responsibilities

18. The SAR Co-ordinators, designated below, have overall responsibility for establishing RCCs as necessary, and for providing or arranging for SAR services within U.S. SRRs. Only RCCs properly established by these SAR Co-ordinators should carry out domestic and international co-ordination of civil SAR operations.

19. U.S. SAR Co-ordinators are as follows (see paragraph 14):

- The U.S. Air Force for the recognized U.S. aeronautical SRR corresponding to the continental U.S. other than Alaska;
- The U.S. Pacific Command for the recognized U.S. aeronautical SRR corresponding to Alaska;
- The U.S. Coast Guard for the recognized U.S. aeronautical and maritime SRRs which coincide with the ocean environments, and including Hawaii.

NOTE: State and local authorities often designate a person to be a "SAR Co-ordinator" within their respective jurisdictions. Responsibilities of such personnel may be quite different from the responsibilities of national SAR Co-ordinators as designated in this Plan, but often these personnel are important contacts for the national SAR co-ordinators.

20. The National Park Service (NPS) is the lead agency that provides SAR and other emergency services within national parks.

21. The Department of State has designated the U.S. Coast Guard to lead and co-ordinate national participation in the SAR and safety-related initiatives of IMO.

22. The Department of State has designated the Federal Aviation Administration to lead and co-ordinate national participation in safety-related initiatives of ICAO.

23. Based upon invitations from ICAO and IMO, respectively, the U.S. Air Force will provide an aeronautical SAR expert and the U.S. Coast Guard will provide a maritime SAR expert, to serve as members of the ICAO/IMO Joint SAR Working Group.

Support Outside U. S. Search and Rescue Regions

24. SAR Co-ordinators, as well as other U.S. authorities, may support civil SAR operations anywhere in the world, consistent with their expertise and capabilities and legal authority. This is consistent with the principles of assisting persons in distress without regard to nationality or circumstances and of using all available resources for SAR. It is in the interest of the safety of U.S. citizens who travel or live worldwide. It is also consistent with U.S. humanitarian goals and the advantages of domestic and international co-operation.

25. In accordance with international law, U.S. SAR facilities, in a position to render timely and effective assistance, may exercise the right to enter into or over the territorial seas or archipelagic waters of another

state for the purposes of rendering assistance to a person, ship, or aircraft whose position is reasonably well known, is in danger or distress due to perils of the seas, and requires emergency assistance.

26. Participants to this Plan, consistent with their capabilities and legal authority, will support civil SAR operations of other countries in territory and international waters beyond recognized U.S. aeronautical and maritime SRRs. As appropriate, and within their capabilities, DOD combatant commands should provide such support within their respective geographic areas of responsibility.

27. In carrying out civil SAR support functions with other nations, such as training, exercises, and liaison, each Participant will co-ordinate its activities with other Participants having civil SAR expertise with respect to the support concerned.

Note: A wealth of valuable reference material is available which should be used working with other nations in the area of civil SAR. These include, but are not limited to, the SAR-related conventions, the IAMSAR Manual (three volumes), this Plan, the National Search and Rescue Supplement, information about the AMVER ship reporting system, and many documents of Cospas-Sarsat, IMO, ICAO, etc. Some of these references are available in languages other than English. Participants should be familiar with such references, and use them as appropriate.

28. While it is appropriate, to the fullest extent the Participants have the authority to do so, to maintain liaison and co-operate with authorities of other nations that have comparable civil SAR responsibilities, such support should be carried out in co-ordination with the U.S. SAR Co-ordinators, and with other neighbouring SAR authorities, as appropriate. Such co-ordination will normally include U.S. Coast Guard Headquarters, Office of Search and Rescue, in order to ensure consistency with U.S. obligations under international agreements to which the U.S. is a Party, and compliance with the IAMSAR Manual and other relevant international guidance relevant to implementing such agreements.

29. Participants should not accept a SAR Co-ordinator or RCC role for SAR operations for SRRs for which other nations are responsible. However, the Participants may provide and support SAR operations in such areas when:

- Assistance is requested (normally this should be in accordance with RCC-to-RCC procedures prescribed in the IAMSAR Manual);
- U.S. citizens are involved; or
- U.S. facilities become aware of a distress situation to which no other suitable facilities are responding, or where other available SAR services appear to be inadequate.

30. For distress situations in international waters or airspace where no SRR exists for which an RCC is responsible, or where it appears that the responsible RCC is not responding in a suitable manner, U.S. RCCs or facilities will assist as appropriate. Such assistance will be subject to availability of resources, legal constraints, and other applicable U.S. policies.

Note: Provisions of international conventions dealing with SAR are intended to ensure that wherever any person goes in the world, suitable SAR services and responsibilities will be in place to assist should that person become in danger or distress. However, there may be nations which are not Parties to, or which have not yet fully complied with, these conventions. Therefore, situations may exist for U.S. resources to supplement SAR capabilities in certain geographic areas, or to support these nations by

training or other means, consistent with U.S. domestic law, to help develop their SAR capabilities. Participants to this Plan may be take advantage of such situations as appropriate.

31. When assisting civil SAR authorities of other nations, or other agencies or organizations supporting these authorities, Participants to this Plan should ensure that:

- They have appropriate legal authority and expertise to do so;
- Principles or provisions of conventions or agreements to which the U.S is Party are not violated;
- Applicable procedures set forth in the IAMSAR Manual, National SAR Supplement, and other relevant directives are known and followed;
- Such efforts are carried out in consultation with other Participants to this Plan as appropriate; and that
- The authorities assisted are responsible for the SAR functions in that country.

32. Policies on rendering assistance in foreign territories or territorial waters must have the goal of balancing concerns for saving lives, for sovereignty, and for national security. Provisions for territorial entry as necessary should be addressed in international SAR agreements where relevant, as discussed below, and care should be taken to ensure that such agreements are compatible with national policies in this regard.

33. When any Participant to this Plan is addressing civil SAR-related inquiries or proposals from other nations or organizations outside the U.S., or when hosting or attending international meetings on civil SAR, care should be taken that interested U.S. agencies, organizations, or persons are consulted and involved as appropriate.

CIVIL SAR AGREEMENTS

34. Bilateral or multilateral SAR agreements with other U.S. agencies or organizations, or with authorities of other nations, may be of practical value to civil SAR, and beneficial for purposes including:

- Helping to fulfil U.S. domestic or international obligations and needs;
- Enabling more effective use of all available resources;
- Better integration of U.S. SAR services with the global SAR system;
- Building commitment to support civil SAR;
- Resolving SAR procedures and sensitive matters in advance of time-critical distress situations; and
- Identifying types of co-operative matters and efforts which may enhance or support SAR operations, such as access to medical or fueling facilities; training and exercises; meetings; information exchanges; use of communications capabilities, or joint research and development projects.

35. Negotiation and conclusion of such agreements should consider matters such as the following:
- Which authorities of the governments, agencies, or organizations concerned are the proper ones to be involved with the agreement;
 - Which types of SAR operations (e.g., aeronautical, maritime, etc.) or SAR support functions should be included within the scope of the agreement;
 - Consistency with international and domestic SAR principles or policies;
 - Establishment of lines separating SRRs if relevant;
 - Whether other treaties, agreements, etc., exist which should be superseded or accounted for in preparation of a new agreement; and
 - Relevant guidance of the IAMSAR Manual, National SAR Supplement, and other pertinent directives.
36. Participants which develop any agreement dealing with civil SAR shall ensure that such efforts are co-ordinated with other interested Participants.
37. Any such international agreement may not be signed or otherwise concluded without prior consultation with the Secretary of State (see Title 1 USC 112b).

NATIONAL SEARCH AND RESCUE COMMITTEE

38. The sponsor of this Plan is the National Search and Rescue Committee. The National Search and Rescue Committee, consistent with applicable laws and executive orders:
- Co-ordinates implementation of this Plan;
 - Reviews matters relating to the Plan affecting more than one Participant, including recommendations for Plan revision or amendment;
 - Encourages federal, state, local and private agencies to develop equipment and procedures to enhance national capabilities for implementing the Plan; and
 - Promotes co-ordinated development of all national resources for this purpose.
39. In particular, the Committee is intended to accomplish the following:
- Oversee this Plan;
 - Provide a standing national forum for co-ordination of administrative and operational civil SAR matters;
 - Provide an interface with other national, regional, and international organizations involved with providing or supporting civil SAR services;

- Develop and maintain suitable guidance for implementation of this Plan, such as a National SAR Supplement to the IAMSAR Manual;
- Promote effective use of all available resources for support of civil SAR;
- Serve as a co-operative forum to exchange information and develop positions and policies of interest to more than one Participant;
- Promote close co-operation and co-ordination between civilian and military authorities and organizations for provision of effective civil SAR services;
- Improve co-operation among the various SAR communities for the provision of effective services; and
- Determine other ways to enhance the overall effectiveness and efficiency of SAR services, and to standardize procedures, equipment, and personnel training where practicable.

SAR SERVICES COVERED BY THIS PLAN

40. This Plan covers civil SAR operations such as:

- Maritime (involving rescue from a water environment);
- Aeronautical (including SAR assistance in the vicinity of airports);
- Land (including SAR operations associated with environments such as wilderness areas, swift water, caves, mountains, etc.)
- Provision of initial assistance at or near the scene of a distress situation (e.g., initial medical assistance or advice, medical evacuations, provision of needed food or clothing to survivors, etc.);
- Delivery of survivors to a place of safety or where further assistance can be provided; and
- Saving of property when it can be done in conjunction with or for the saving of lives.

Note: Outside national parks, state and local authorities or SAR units often accept responsibility for providing domestic land SAR services.

41. Civil SAR does *not* include operations such as:

- Air ambulance services which did not result from a rescue or recovery operation;
- Assistance in cases of civil disturbance, insurrection or other emergencies which endanger life or property or disrupt the usual process of government;
- Rescues from space (although rescue of persons returned from space can be included);
- Military operations, such as combat SAR or other types of recovery by military operations to remove military or civilian personnel from harm's way;

- Salvage operations;
- Response to natural or man-made disasters or terrorist incidents; and
- Typical disaster response operations, such as: assisting large numbers of persons in distress as the result of natural or man-made disaster situations; locating and rescuing victims trapped in collapsed structures; or other assistance provided under the scope of the Federal Response Plan.

Note: No provision of this Plan or any supporting plan is to be construed as an obstruction to prompt and effective action by any agency or individual to relieve distress whenever and wherever found.

EXTENT OF MUTUAL ASSISTANCE

42. The Participants agree to co-operate as follows:

- Support each other by pooling relevant facilities and support services as appropriate for operations within their respective SRRs, and consistent with each participant's relevant legal authorities;
- Make, and respond to, requests for operational assistance between the designated RCCs, RSCs, or comparable command centers (CCs) of the Participants as capabilities allow;
- Develop procedures, communications, and databases appropriate for co-ordination of facilities responding to distress incidents, and for co-ordination between the RCCs, RSCs or CCs of the Participants;
- Normally follow applicable guidance of the IMO, ICAO, or other relevant international bodies regarding operational procedures and communications; and
- In areas where more than one authority may respond to distress situations, agreed procedures should be in place, which balance concerns for saving lives and for jurisdiction.

43. The Participants may also enter into other collaborative efforts with each other such as:

- Mutual visits, information exchanges, and co-operative projects for support of SAR;
- Joint training or exercises;
- Co-operation in development of procedures, techniques, equipment, or facilities;
- Establishment of groups subordinate to the National Search and Rescue Committee as a means for more in-depth focus on matters of common concern; and
- Carry out co-operative efforts similar to those indicated above on an international level.

GENERAL TERMS

44. Co-operative arrangements between a Participant with operational responsibilities and state, local, and private agencies should provide for the fullest practicable co-operation of such agencies for operational missions, consistent with the willingness and ability of such agencies to act, and for such co-ordination by the responsible RCC, RSC, or CC of their facilities as may be necessary and practicable.

45. Participants with operational responsibilities may request assistance from other federal agencies having capabilities useful for a mission.

46. The federal government does not compel state, local or private agencies to conform to this Plan; such entities can direct and control their own facilities within their boundaries, and co-operation will be pursued through liaison and consultation.

CHARGING FOR SAR SERVICES

47. Each Participant will fund its own activities in relation to this Plan unless otherwise arranged by the Participants in advance, and will not allow a matter of reimbursement of cost among themselves to delay response to any person in danger or distress.

48. The Participants agree that SAR services that they provide to persons in danger or distress will be without subsequent cost-recovery from the person(s) assisted.

49. In accordance with customary international law, when one nation requests help from another nation to assist a person(s) in danger or distress, if such help is provided, it will be done voluntarily, and the U.S. will neither request nor pay reimbursement of cost for such assistance.

PRINCIPLES ACCEPTED BY THE PARTICIPANTS

General

50. Participants co-ordinating operations should, consistent with applicable laws and executive orders, organize existing agencies and their facilities through suitable agreements into a basic network to assist military and non-military persons and property in actual or potential danger or distress, and to carry out obligations under customary international law and international instruments to which the U.S. is a Party.

51. The Participants will seek to keep political, economic, jurisdictional, or other such factors secondary when dealing with civil lifesaving matters, i.e., where possible, what is best for lifesaving will govern their decisions.

52. Consistency and harmonization will be fostered wherever practicable among plans, procedures, equipment, agreements, training, terminology, etc., for the various types of lifesaving and recovery operations, taking into account terms and definitions adopted internationally as much as possible.

53. Terminology and definitions used throughout the U.S. SAR community will be standardized to the extent possible, and be as consistent as possible with usage in pertinent international conventions and the IAMSAR Manual.

54. If a distress situation appears to exist or may exist, rescue or similar recovery efforts will be based on the assumption that a distress situation does actually exist until it is known differently.

55. Assistance will always be provided to persons in distress without regard to their nationality, status, or circumstances.

56. Generally, cost-effective safety, regulatory, or diplomatic measures that tend to minimize the need for U.S. SAR services will be supported.

57. Close co-operation will be established between services and organizations, which may support improvements in lifesaving functions in areas such as operations, planning, training, exercises, communications and research and development.

58. Recognizing the critical importance of reduced response time to the successful rescue and similar recovery efforts, a continual focus will be maintained on developing and implementing means to reduce the time required for:

- Receiving alerts and information associated with distress situations;
- Planning and co-ordinating operations;
- Facility transits and searches;
- Rescues or recoveries; and
- Providing immediate assistance, such as medical assistance, as appropriate.

Aeronautical and Maritime Search and Rescue

59. All SAR personnel should be generally familiar with the International Convention on Maritime Search and Rescue of the IMO, the Convention on International Civil Aviation, Annex 12 (“Search and Rescue”) of ICAO, the joint ICAO/IMO IAMSAR Manual, the National SAR Supplement, and other primary directives or information applicable to their work in civil SAR.

60. Local co-operative arrangements within the U.S. should be made in advance between SAR, air traffic, and airport authorities for close co-ordination in handling aircraft emergencies, unless the same authorities hold all the involved responsibilities.

61. The SAR principles and procedures of relevant customary international law and international Conventions and the IAMSAR Manual will serve as the framework for co-ordination of any SAR operations, and especially those involving multiple countries, organizations or jurisdictions; U.S. organizational or operational SAR plans and provisions of the National SAR Supplement will be consistent with these international provisions to the extent practicable.

62. The U.S. Coast Guard will sponsor a global voluntary ship reporting system for maritime and aeronautical SAR and offer pertinent information from the associated database to recognized RCCs worldwide. (This system will be used only for SAR, with its information being treated as “commercial proprietary” as promised to the ships reporting. Continuation of this system as just described will be reconsidered if need for the reporting system changes, or acceptable alternative international systems develop.)

63. Operational responsibilities for maritime and aeronautical SAR will generally be associated with internationally-recognized geographic maritime and aeronautical SRRs, and a single federal agency will be

given primary responsibility for co-ordinating SAR operations within each SRR, with other agencies and organizations providing support as appropriate. However, in some specific sub-areas, such as within national parks, other federal authorities may be responsible.

64. Distress situations involving airborne aircraft will normally be handled by the maritime or aeronautical SAR authorities responsible for the SRR concerned once the distressed aircraft is down, and co-operatively between these authorities and air traffic service authorities as long as the aircraft remains airborne.

Note: Land SAR services may include aeronautical SAR operations. Involvement of Participants in such operations may be governed by agreements between SAR co-ordinators and various state and local authorities. Participants will support such operations as appropriate, bearing in mind the provisions of paragraph 7 of this Plan.

Co-ordination of Operations

65. Each agency responsible for operations under this Plan will:

- Keep information readily available on the status and availability of key SAR facilities or other resources which may be needed for operations; and
- Keep each other fully and promptly informed of operations of mutual interest, or which may involve use of facilities of another Participant;

66. SAR Co-ordinators will delegate to their RCCs the authority to:

- Request assistance via other RCCs/RSCs including those of other nations;
- Promptly respond to requests for assistance from other RCCs/RSCs, including those of other nations as discussed below;
- Grant permission for entry into the U.S. of SAR facilities of other countries; and
- Make arrangements with appropriate customs, immigration, health or other authorities to expedite entry of foreign SAR facilities as appropriate.

67. SAR Co-ordinators will authorize their RCCs to arrange promptly or in advance for entry of foreign rescue units into the U.S. should it ever become necessary. Such arrangements should involve appropriate U.S. authorities as well as proper authorities of the nation or SAR facility involved with the entry. Such entry may include overflight or landing of SAR aircraft, and similar accommodation of surface (land or water) SAR units) as circumstances dictate for fueling, medical, or other appropriate and available operational support, or delivery of survivors, or it could also be in response to a request from a U.S. RCC to the RCC of another nation for assistance of those facilities.

68. Establishment of JRCCs, and of jointly sponsored and staffed RCCs or RSCs, are encouraged where appropriate.

69. Operations of SAR facilities committed to any SAR mission normally should be co-ordinated, and, as appropriate, directed, by an appropriate RCC or RSC consistent with the provisions of this Plan.

70. On scene co-ordination may be delegated to any appropriate unit participating in a particular incident under the cognizance of the SAR mission co-ordinator at an RCC or an incident commander.

71. No provision of this Plan or any supporting plan is to be construed as an obstruction to prompt and effective action by any agency or individual to relieve distress whenever and wherever found.

72. If an RSC is established by any agency, it must operate under the oversight of an RCC, and be responsible for certain tasks or for portions of the RCC's SRR, as determined by the agency concerned.

73. SAR Co-ordinators shall arrange for the receipt of distress alerts originating from within SRRs for which they are responsible, and ensure that every RCC and RSC can communicate with persons in distress, with SAR facilities, and with other RCCs/RSCs.

Incident Command System

74. A co-ordination system often used in local areas, and for emergency response scenarios involving multiple agencies and multiple jurisdictions, is the Incident Command System (ICS).

75. When SAR forces become involved in situations where ICS is being used, an on scene incident commander will be in charge of co-ordinating operations overall. In such cases the SAR mission co-ordinator or person designated by the SAR mission co-ordinator will normally serve as a SAR Agency Representative to the incident commander.

76. RCCs should normally use the co-ordination procedures of the IAMSAR Manual and the National SAR Supplement, but should also be familiar with the ICS system, and may use or support ICS as the situation warrants.

Military Roles and Military-Civilian Relationships

77. Arrangements between federal military and civil agencies should provide for the fullest practicable co-operation among themselves, consistent with statutory responsibilities and authorities and assigned SAR functions.

78. Co-operative arrangements involving DOD and Coast Guard commands should provide for the fullest practicable use of their facilities for civil SAR on a not-to-interfere basis with military missions, consistent with statutory responsibilities and authorities and assigned agency functions.

79. Participants with operational responsibilities should develop plans and procedures for effective use of all available SAR facilities, and for contingencies to continue civil SAR operations if military forces are withdrawn because of another emergency or a change in military missions.

80. DOD responsibilities under this Plan include support of civil SAR on a not-to-interfere basis with primary military duties, in accordance with applicable national directives, plans, guidelines, agreements, etc.

Resources

81. To optimize delivery of efficient and effective services, and, where practicable and consistent with agency authorities, provide the organizations and persons interested in supporting these services the opportunity to do so, all available resources will be used for civil SAR. Certain state and local governments,

civil and volunteer organizations, and private enterprises have facilities, which contribute to the effectiveness of the over-all SAR network, although they are not Participants to this Plan.

82. To help identify, locate and quantify primary SAR facilities, Coast Guard and DOD commands may designate facilities which meet international standards for equipment and personnel training as “SAR units” (SRUs). (Such facilities do not need to be dedicated exclusively to the associated type of operations, and this designation is not intended to preclude use of other resources.)

83. Recognizing the critical role of communications in receiving information about distress situations and co-ordinating responses, and noting that such responses sometimes involve multiple organizations and jurisdictions, the Participants will work aggressively to develop suitable SAR provisions for:

- Interoperability;
- Means of sending and receiving alerting;
- Means of identification;
- Effective provisions for equipment registration and continual access to registration data by SAR authorities;
- Rapid, automatic, and direct routing of emergency communications;
- High system reliability; and
- Preemptive or priority processing of distress communications.

Technical and Support Services

84. The Participants will strive together to:

- Apply the most effective systems to save the most lives at the least operational risk and cost; and
- Foster innovation in technical, administrative and informational systems, which will improve the ability of the Participants and associated non-governmental organizations to carry out their civil SAR duties.

85. Management, operational, and support personnel of the Participants will be partners, assisting each other with the goal of maximum operational effectiveness.

86. Priority goals of the Participants shall include:

- Make distress alerts and associated data available to operational personnel as quickly, comprehensively, and reliably as possible;
- Provide communications systems which are highly reliable, simple, problem-free, interoperable, and as functionally effective as possible; and

- Enable operational personnel to be as highly effective in planning and conducting operations as possible, by providing them with the training, equipment, procedures, facilities, information, and other tools necessary to carry out planning and operational duties in a consistent, highly professional, and effective manner.

87. Participants should:

- Encourage development and maintenance of proficiency in SAR techniques and procedures by other agencies participating in civil SAR, and assist them as appropriate;
- Encourage continued development of state and local SAR facilities as appropriate; and
- Enter into agreements, as appropriate, with State, local, and private organizations to provide for the fullest practicable co-operation in civil SAR consistent with their capabilities and resources, and to account for use of federal facilities in SAR missions with which these organizations are involved.

Suspension or Termination of Operations

88. SAR operations shall normally continue until all reasonable hope of rescuing survivors or victims has passed.

89. The responsible RCC/RSC concerned shall normally decide when to discontinue these operations. If no such center is involved in co-ordinating the operations, the OSC or IC may make this decision. If there is no OSC or IC involved, the decision will be made at an appropriate level of the chain-of-command of the facility conducting the operations.

90. When an RCC/RSC or other appropriate authority considers, on the basis of reliable information that a rescue or recovery operation has been successful, or that the emergency no longer exists, it shall terminate the SAR operation and promptly so inform any authority, facility or service which has been activated or notified.

91. If an operation on-scene becomes impracticable and the RCC/RSC or other appropriate authority concludes that survivors might still be alive, it may temporarily suspend the on-scene activities pending further developments, and shall promptly so inform any authority, facility or service which has been activated or notified. Information subsequently received shall be evaluated and operations resumed when justified on the basis of such information.

ENTRY INTO FORCE, AMENDMENT, OR TERMINATION

92. This Plan:

- shall enter into force effective January 1, 1999;
- may be amended by written agreement among the Participants; and
- may be terminated or superseded by a new Plan or by written agreement among the Participants.

An individual Participant may terminate its status as a Participant to this Plan by notifying the other Participants in writing at least six months in advance of such termination. Since this Plan is sponsored by the National SAR Co-ordinating Committee, and it is intended that the Participants to this Plan correspond to the member agencies of that Committee, such termination will be deemed to also terminate the Participant's membership on the Committee.

APPENDIX G

TOWARDS AN INTEGRATED AUSTRALIAN RCC

Introduction

1. A decision was taken in early 1997 to vest the responsibility for aviation and maritime SAR functions in Australia into a single integrated Rescue Coordination Centre from 1 July 1997. Up until this time the agency responsible for coordinating the response to an incident depended on the operating environment of the unit in distress. Airservices Australia (the national air traffic management service provider) was responsible for aviation incidents, with this responsibility being exercised through two geographically distinct RCCs. For maritime incidents, the Australian Maritime Safety Authority (AMSA) had the responsibility to respond through a separate Maritime RCC (MRCC) located in Canberra.

2. Although this division of responsibility worked reasonably well, there were times when the delineation of responsibility was unclear. Specific areas of concern included delays in communications that had the potential to lead to misunderstandings, responding effectively to incidents that required a coordinated response, and the problems with transferring the responsibility from one RCC to another should this be required. These concerns were highlighted by the increased reliance on distress beacons as the first indication that a distress situation existed with the operating environment of the unit in distress unknown. At the strategic level, a single integrated RCC was perceived to provide other benefits including a higher profile and more focused strategic direction for SAR in Australia. Thus a decision was taken to amalgamate the activities of all three RCCs into a single organisation, termed Australian Search and Rescue (AusSAR), under the auspices of AMSA in Canberra.

3. Although there are a number of models of joint RCCs around the world, none of these provided a template for the Australian requirement where it was the intention to integrate the activities of the RCC down to the lowest level consistent with providing a quality SAR service. It should be noted that in Australia the civil sector provides the SAR response assets unless it is beyond their capacity, in which case the military provides assistance.

Discussion

4. **Rationale.** The objective of establishing a single Australian centre to coordinate aviation and maritime search and rescue was to overcome real and perceived shortcomings in communications, coordination and the national development of the SAR system under the previous arrangements where three RCCs and two government agencies were involved. It was recognised that contemporary communications systems allowed the activities to be coordinated from the one national centre and, with the concentration of effort, there would be increased levels of efficiency and effectiveness from bringing the disparate resources together.

5. **Functions.** The major functions of AusSAR are:

- coordinating search and rescue activities for aircraft in distress;
- coordinating search and rescue activities for vessels in distress;
- being responsible for providing national and regional training via the Australian National SAR School;

- managing the acquisition, deployment and maintenance of air-droppable emergency supplies;
- managing the civil SAR unit program under which aircraft operators are engaged on a commercial basis to undertake aerial searches and to deliver air-droppable emergency supplies;
- managing the Australian ground segment of the Cospas-Sarsat satellite system which is used for the detection of distress beacons;
- maintaining the Australian Ship Reporting System (AUSREP);
- providing maritime safety information for vessels at sea; and
- managing maritime distress and safety communications including arrangements for the Coast Radio Station network and the Inmarsat maritime communications system.

The In-flight Emergency Response (IFER) service for aircraft remains the responsibility of Airservices Australia which also provides an aviation SAR alerting function for AusSAR.

6. **Culture, Experience and Procedures.** There was an appreciation from the beginning that the aviation and maritime Search and Rescue Officers had distinctly different cultures, experience and procedures which they applied to the SAR equation. This meant that any integration of the functions needed to be a planned and deliberate process with the cross training of maritime and aviation practitioners in the environment and procedures of their counterparts to facilitate the process. However, there was also a need to ensure that the efficient delivery of a SAR response was not compromised. Therefore, a staged approach to the integration task was adopted where each stage would be closely monitored before a decision would be taken to proceed to the next stage.

7. **Stage 1 – Collocation and Integration at the Management Level.** The first stage of the formation of AusSAR was the bringing together of the former Aviation RCCs and the MRCC into the one organisation in Canberra. Given the short notice of the creation of the organisation, the first stage was planned to ensure that SAR coverage was maintained with the operational aviation and maritime functions being collocated and with the integration efforts limited to the management level. The plan then called for a settling in period of the two functions operating in parallel from the one facility before lateral integration of the aviation and maritime functions occurred.

8. **Stage 2 – Integration at the RCC Supervisor Level.** Following eighteen months of parallel operations, the RCC will transition to a single shift supervisor responsible for aviation and maritime SAR from 1 January 1999. The core competencies, personal qualities, and specific skills sets of a cross-discipline supervisor have been assessed and specific on-the-job and class room training has been developed. Cross training commenced in the second half of 1998 and should be sufficiently well advanced to meet the planned introductory date. The operations room layout will also be changed to reflect the integration of functions. The Shift Supervisor will be responsible for the following:

- Managing the SAR actions of the RCC in accordance with relevant conventions, legislation and internal operational procedures. In particular, the Shift Supervisor will take responsibility for the management and implementation of:

- all actions and procedures required in the prosecution of a SAR incident;
 - all alerting and notification procedures;
 - the arrangements for the prompt dispatch of appropriate and adequate SAR resources; and
 - the liaison with counterpart authorities and the media.
- Managing the shift operations of the RCC and provide:
 - active team leadership and supervision to subordinate duty staff;
 - instructions; and
 - training as required.
 - Liaising with management and RCC staff on operational SAR issues.
 - Promoting equality of employment opportunity, participative management practices and a safe and healthy work environment.

9. **Stage 3 – Lateral Integration at Operative Level.** Within the current planning horizon, the final stage of the RCC integration process will take place on 1 January 2000. It is recognised that the RCC staff need to retain sufficient flexibility to respond to multiple SAR incidents in a team environment and intensive cross training modules are being developed so that this can occur. In addition to the general SAR practitioner qualifications and competencies, a small number of labour intensive sub-specialisations have been identified. All staff below the supervisor level will be required to maintain currency in two sub-specialisations in addition to his/her general duties. The intention is to have a minimum of two trained personnel to perform all tasks identified by each sub-specialisation on each rostered shift. This will mean that there is a balance of aviation and maritime experience between on duty staff at any one time so that an appropriate SAR response can be mounted taking into account the environment in which the incident has occurred. At this stage, it is planned to have everyone trained in search allocation, intelligence and computer systems operation. The envisaged sub-specialisations are:

- Maritime Safety Information
- COSPAS-SARSAT Operations Control Console
- SAR Support Specialist Tasks
- Communications Telecommunications Operator
- Australian Ship Reporting System (AUSREP)

10. **The Monitoring Process.** The strategy chosen for the integration of the aviation and maritime SAR functions has as its strength a deliberate incremental approach where the process is being monitored as each stage progresses before a decision is taken to proceed to the next stage. The objective is for AusSAR to meet its strategic objective of enhancing the safety of life by providing efficient and cost effective aviation and maritime SAR services and maritime safety and distress communications while minimising the risks during the transition period. It is not inconceivable that as the integration process

proceeds and technology provides solutions which are not environment specific that the experience and cultural divisions between the aviation and maritime SAR practitioners will become less distinct. This leads to the observation that the Australian experience of fully integrating the two functions may become a model for other nations in the future notwithstanding the structural difficulties that this presents to many countries.

Recommendations

11. The Joint Working Group is requested to:
 - a. **note** the comments above; and
 - b. **note** that the Australian experience may provide a model for other nations who may wish to pursue an integrated aviation and maritime RCC.

APPENDIX J

RATING

Introduction

The powers, rights and responsibilities of a SAR mission Co-ordinator are considerable. Therefore, the position of SAR Mission Co-ordinator should be subject to a formal rating. The SAR authority should establish the minimum requirement for obtaining such a rating. Furthermore, the SAR authority should also specify the requirement for obtaining such a rating.

Recommendation

Initial rating requirements

The initial requirement for a SAR Mission Co-ordinator should cover the following:

- * level of schooling;
- * minimum age and years of service;
- * human qualities required for the position;
- * requested level of previous experience in the field;
- * training; and
- * on the job training (OJT).

Requirements to maintain or recapture a rating

A SAR Mission Co-ordinator should be subject to a periodical (annual) testing procedure to maintain the rating. Recurrent training is a prerequisite to be able to maintain the skills and keep the rating. Furthermore, a minimum number of shifts must be performed during a specified period (e.g. four shifts during a three month period) to keep the rating.

Being away from service for a longer period than three months should require an update programme and a short service period under supervision to recapture rating. The programme should cover at least the following:

- * search planning;
- * calculation of search areas;
- * position transformation;
- * plotting routines;

- * case studies;
 - * review of SAR mission reports;
 - * national rules and regulations;
 - * units rules and regulations; and
 - * job routines.
-